



# TRAINING & SIMULATION

## INDUSTRY SYMPOSIUM



**PEO  
STRI**

# **TRAINING & SIMULATION**

## **INDUSTRY SYMPOSIUM**



***COL Mike Zarbo***

***Project Manager  
Instrumentation, Targets, and Threat Simulators  
(PM ITTS)***





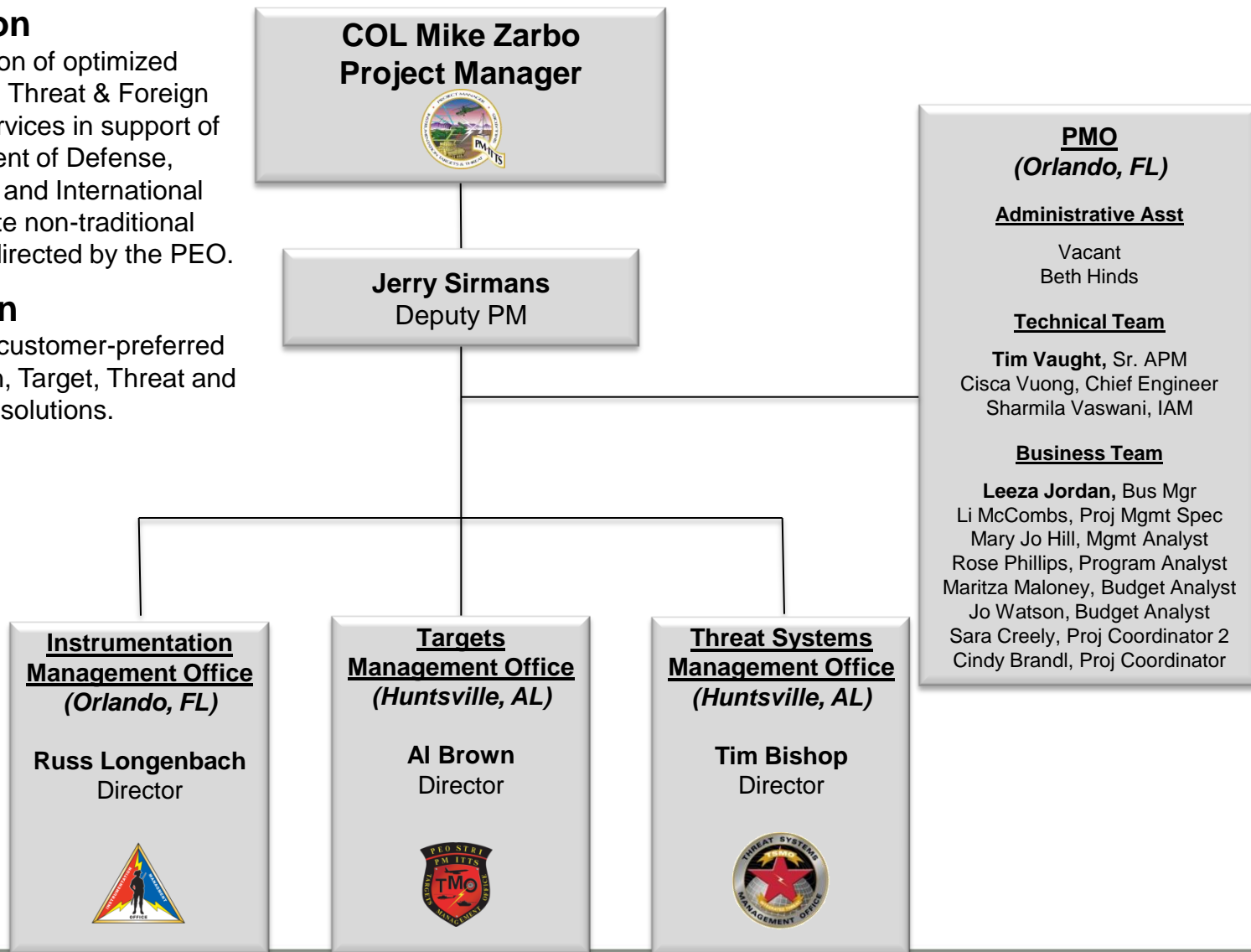
# PM ITTS Organization Chart

## Mission

Manage the acquisition of optimized Instrumentation, Target, Threat & Foreign System products and services in support of U.S. Army, Department of Defense, Government, Industrial and International Customers and execute non-traditional missions as assigned or directed by the PEO.

## Vision

To be recognized as the customer-preferred source for Instrumentation, Target, Threat and foreign System solutions.





# PM ITTS Primary Support

## The Test and Evaluation Community

### Department of Defense

#### Office of the Secretary of Defense

**Director,  
Operational Test  
& Evaluation  
(DOT&E)**



**Undersecretary  
of Defense, for  
Acquisition,  
Technology, and  
Logistics  
(USD (AT&L))**



**Developmental  
Test and  
Evaluation (DT&E)  
Test Resource  
Management  
Center  
(TRMC)**



CTEIP



T&E/S&T



JMETC



**Secretary of Defense  
Deputy Secretary of Defense**

**Joint Chiefs of Staff  
Chairman, Joint Chief of Staff**

**Chief of Staff, Army**

**Vice Chief of Staff, Army**

**Army Test and Evaluation Command  
(ATEC)**



**Army  
Evaluation  
Center  
(AEC)**



**Aberdeen Test  
Center**

**Dugway Proving  
Ground**

**Redstone Test  
Center**

**White Sands  
Missile Range**

**Yuma Proving  
Ground**

**Operational  
Test  
Command  
(OTC)**



#### Department of the Army

**Secretary of the Army**

**Deputy Under  
Secretary of the  
Army, Test &  
Evaluation  
(DUSA(TE))**



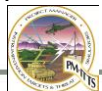
**Assistant Secretary of the  
Army for Acquisition,  
Logistics and Technology  
(ASA(ALT))**



**Program Executive Office  
for Simulation, Training,  
& Instrumentation  
(PEO STRI)**



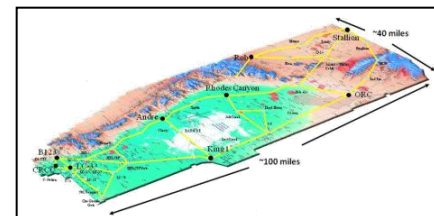
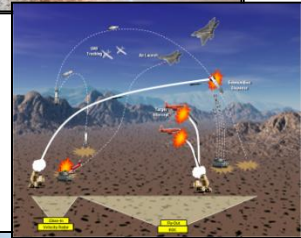
**Project Manager for  
Instrumentation, Targets,  
and Threat Simulators  
(PM ITTS)**





- Significant Events

- 





# *Annual Highlights (Cont.)*

- Contract Awards
  - Multi-spectral Sea and Land Target Simulator (MSALTS)
  - Surface to Air Missiles and Rocket Propelled Grenades (SAM & RPG)
  - Range Radar Replacement Program (RRRP), Velocity Radar (VR)
  - Objective Helicopter Icing Spray System (OHISS)
  - Aerial Target Flight Services (ATFS)
- New Efforts
  - Advanced Range Tracking and Imaging System (ARTIS)
  - Warrior Injury Assessment Manikin (WIAMan)
  - New T&E/S&T Electronic Warfare (EW) Test Technology Area





# *Annual Highlights (Cont.)*

- Conferences Supported
  - PEO STRI Industry Day, Orlando, FL (7 Apr)
  - Army Aviation Association of America (AAAA), Fort Worth TX (14-17 Apr)
  - International Training and Education Conference (ITEC), Germany (10-12 May)
  - Test Week, Huntsville, AL (14-17 Jun)
  - Military Operations Research Society Symposium (MORSS), Monterey, CA (20-23 Jun)
  - Directed Energy Professional Society (DEPS) International Test and Evaluation Association (ITEA), Albuquerque, New Mexico (2-4 Aug)
  - National Guard Association of the United States (NGAUS), Milwaukee, WI (26-29 Aug)
  - International Test and Evaluation Association (ITEA) Symposium, Orlando, FL (12-15 Sep)
  - Test and Evaluation/Science and Technology (T&E/S&T) Industry/Academia Days, Atlanta, GA (18-20 Oct)
  - National Defense Industry Association (NDIA), 49<sup>th</sup> Annual Targets, UAVs, and Range Operations Symposium & Exhibition, Fort Walton Beach, FL (26 Oct)





# Annual Highlights (Cont.)

## • ITTS in the News

- Finley, R., Gilliland, R., & McFarlin, S. (2011, Aug). TMO: The STRI family's long lost cousin. *Inside STRI*, Volume XI, Issue VIII, p. 8.
- Gilliland, R. (2011, Jun). TMO helps wounded warrior build a new life. *Inside STRI*, Volume XI, Issue VI, p. 9.
- Gregory, R. (2011, May). PEO STRI helps save a part of U.S. history. *Inside STRI*, Volume XI, Issue V, p. 8.
- Jeffers, M. (2011, Jan). Two PEO STRI teams win Army Modeling and Simulation Awards. *Inside STRI*, Volume XI, Issue I, p. 5.
- McCullough, K. (2011, Feb). ITTS' counter-threat program named team of the 1<sup>st</sup> quarter. *Inside STRI*, Volume XI, Issue II, p. 7.
- McCullough, K. (2011, Apr). PM ITTS conducts Integrated Threat Force demo. *Inside STRI*, Volume XI, Issue IV, p. 4, 11.
- McCullough, K. (2011, May). Twister takes everything, but hope and help. *Inside STRI*, Volume XI, Issue V, p. 9.
- Orozco, J. & Mathias, D. (2011, Feb). PM ITTS transitions enterprise network to White Sands Missile Range and exceeds Army goals. *Inside STRI*, Volume XI, Issue II, p. 4.
- Spinks, W. & Wood, J. (2011, Aug). PM ITTS supports the Army's network strategy. *Inside STRI*, Volume XI, Issue VIII, p. 3, 10.
- Spinks, W., Wood, J. & Brown, C. (2011, Oct-Dec). Threat Test: Realistic electronic warfare and computer network operations environment supports Network Integration Evaluation. *Army AL&T*, 18-21.
- Wright, D. (2011, July). Objective Helicopter Icing Spray System project awards prime contract. *Inside STRI*, Volume XI, Issue VII, p. 8.





# Priorities for the Future

- Better Buying Power Initiatives
  - Target Affordability and Control Cost Growth
  - Incentivize Productivity and Innovation
  - Promote Real Competition
  - Improve Tradecraft in Services Acquisition
  - Reduce Non-Productive Processes and Bureaucracy
- Test Synchronization
  - Network Integration Evaluation (NIE) Support
    - Providing outstanding threat systems and services in support of the ongoing Army NIE events.
    - Supporting next year's Warfighter Information Network - Tactical (WIN-T) test event with ADMAS KOV-37s.
    - Purchasing Land Mobile Radios for White Sands Missile Range (WSMR) to be used at NIE.



KOV-37 Secure  
Communications  
Processor



# Priorities for the Future (Cont.)

Cyber Testing - Promote the cyber mission of TSMO and creating strategic partnership with the Cyber Community.

## Key Leader Briefings

- Mr. Grimm, DUSA-TE (10 Jan, 5 Apr)
- Mr. Reyenga, DPEO STRI (20 Jan)
- Dr. Blake, PEO STRI (22 Mar)
- MG Justice, CG ARDEC (24 Mar)
- Dr. Tanebaum, Director, ARL/SLAD (30 Mar)
- MG Dellarocco, CG ATEC (20 Apr)
- Ms. Shyu, Principal Deputy ASA(ALT) (26 May)
- Mr. Daly, Deputy Director Land Warfare, DOT&E (1 Jun)
- Mr. Kreider, DPEO Integration (2 Jun)
- MG Dellarocco, CG ATEC (13 Jun)
- Mr. Simmons, Technical Director, ATEC (15 Jun)
- Mr. Duma, Principal Deputy Director, DOT&E (21 Jun)
- BG Zwack, G3, ARCYBER (17 Nov)
- Mr. Greer, Director DT&E and TRMC (17 Nov)



## Supported Events

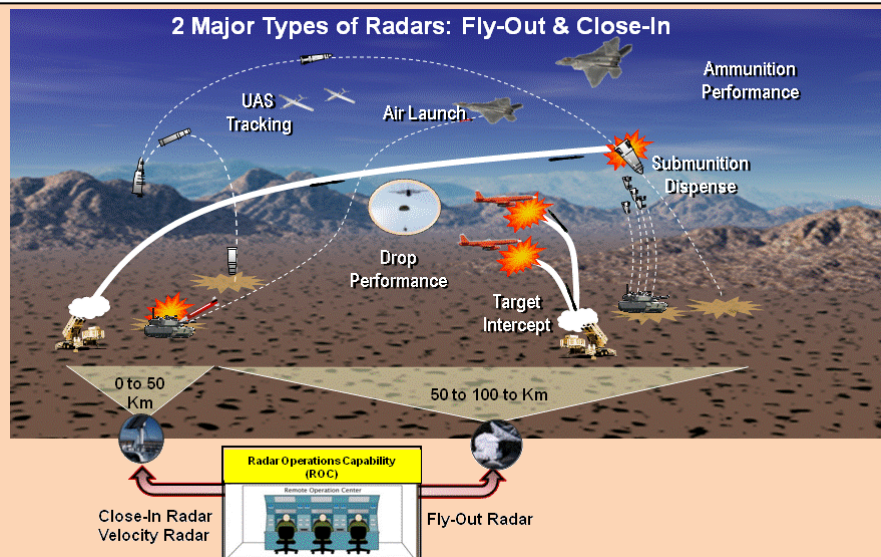
- TALISMAN SABER (TS11) Joint exercises
- Augmentation with ARCYBER/1<sup>st</sup> IO CMD for Network Integration Evaluation (NIE) 11.2 test Jun 2011
- Operational T&E within the next 12 months for:
  - NIE 12.2 – Confirmed Warfighter Information Network-Tactical (WIN-T) and Joint Tactical Radio System (JTRS) Handheld, Manpack and Small Form Fits (HMS) Manpack (MP)
  - Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS),
  - GREY EAGLE
  - Virtual Interactive Processing System (VIPS)
  - Global Combat Support System - Army (GCSS-A)
  - Apache Block III (AB3)
  - Joint Mission Environment Test Capability (JMETC)
- ARL/SLAD Training on NETT
- TSMO is on the source selection team for the DARPA National Cyber Range (NCR) and DARPA is coordinating with USCYBER and TSMO for the hosting of the NCR at TSMO
- Team Training at BlackHat/DEFCON and for Information Systems Security Management Professional certification



# Range Radar Replacement Program (RRRP)



## 2 Major Types of Radars: Fly-Out & Close-In



## Highlights

### Last 6 Months:

- Velocity Radar (VR) Delivery Orders issued (28 Mar 11, 17 Apr 11, 12 May 11)
- Post award conference with Weibel (4 May 11)
- Pre-Solicitation Conference (5 May 11)
- One-on-One meetings with Industry (5-6 May 11)
- Milestone B Decision Briefing (26 May 11)
- SRB (10 Jun 11)
- RFP released (23 Jun 11)
- RFP Closed (9 Aug 11)
- Source Selection Process (began 10 Aug 11)

### Next 6 Months:

- Awaiting delivery of initial VR procurement (beginning 2ndQTR FY12)
- Source Selection Process continues

## Project Description

This program plans to replace obsolete tracking radars at ATC, RTC, WSTC, and YTC with modern digital instrumentation radars. With increased sensitivity, power, and accuracy, the new mobile radars accomplish the program goals of:

- Meeting current and emerging test requirements.
- Reducing the total number of system required for range coverage.
- Reducing manpower and maintenance requirements.
- Creating a mobile radar fleet shared by the test centers.

### Current ACAT:

- ACAT III

### Current Milestone:

- Milestone B (Approved 26 May 11)

## Requirements Documentation:

- TCRD approved by Mr. Mike Etzinger, Executive Director DTC, on 8 Jun 09

## Customer/User:

- Customer: Gary Hettchen (ATEC)
- Users:
  - ATC
  - RTC
  - WSTC
  - YTC





# Range Radar Replacement Program (RRRP)



## Description/Summary of Program Requirements

- Replace tracking radars at Aberdeen Test Center (ATC), Redstone Test Center (RTC), Yuma Test Center (YTC), and White Sands Test Center (WSTC).
- Increased sensitivity, power, accuracy, and data to meet current and future test needs. Plans to reduce total number of systems required for coverage, manpower, and maintenance during tests by providing remote controlled, mobile, and reliable systems.
- Currently divided into two performance zones:
  - Fly-out – currently fulfilled by the FPS-16.
  - Close-in – currently fulfilled by various X-Band pulse Doppler radars.





### Acquisition Strategy

- Full and Open Competition

### Period of Performance

- FY12-FY22

### Milestones

3QFY10	2QFY11	3QFY11	3Q FY12
			
MDD Anticipated	Draft RFP Release	Final RFP Release	Contract Award

### Points of Contact

Organization: PEO STRI Contracts  
Name: Jason Malak  
Phone: 407-208-3337  
Email: Jason.Malak@us.army.mil  
Name: Wesley Whisner  
Phone: 407-384-5413  
Email: Wesley.Whisner@us.army.mil

### Funding

- Anticipated funding:
  - \$104M RDT&E
  - \$75M to \$200M OPA

### Current Contract/Original Developer/OEM (if recompet)

- N/A



# Test and Evaluation/Science and Technology (T&E/S&T)



## Highlights

### Last 6 Months:

- CCA awarded 20 FY11 New Starts; Released FY12 BAA
- Hosted T&E/S&T Mid-Year Program Execution Review
- DET transitioned three projects: DOMG, SHEF and RSTP
- EWT stood-up and began managing eight projects
- Assist with T&E/S&T Industry-Academia Days in Oct

### Next 6 Months:

- DET transition four projects: PRST, APOS, ERSA, and TIPA
- Transfer five MST contracts to EWT

## Project Description

- OSD Test Resource Management Center Test and Evaluation / Science and Technology (TRMC T&E/S&T) funded effort
- Matures high risk, high payoff technology enablers using 6.3 RDT&E funding to meet T&E requirements of future DOD weapon systems
- Provides expeditious PEO STRI acquisition and contract execution services to multiple S&T Test Technology Area (TTA) Executing Agents (EAs) through the issuance of Broad Agency Announcements (BAAs) and award and management of ensuing contracts

**Current ACAT:** Support Mission

## Requirements Documentation

MOU between TRMC & PEO STRI - in final staffing

### Test Technology Area (TTA) Executing Agents

- Advanced Instrumentation Systems Test (AIST) – NUWC Newport, RI
- Advanced Propulsion Test Technology (APTT) – Arnold AFB, TN
- Cyber Test Technology (CTT) – NAVAIR Pt. Mugu, CA
- Directed Energy Test (DET) – PEO STRI, Orlando, FL
- Electronic Warfare Test (EWT) – PEO STRI, Orlando, FL
- Net-centric Systems Test (NST) – NAVAIR Pt. Mugu, CA
- Spectrum Efficient Technology (SET) – Edwards AFB, CA
- Unmanned and Autonomous Systems Test (UAST) – NAVAIR Pax River, MD

**Users:** MRTFBs, DoD test ranges, laboratories and facilities



# Test and Evaluation/Science and Technology (T&E/S&T)



## Test Resource Management Center (TRMC) Test & Evaluation/Science & Technology (T&E/S&T) Program

### Test Instrumentation S&T (8 separate Test Technology Areas):

- DOD TRMC S&T funding.
- S&T applied technology (Budget Activity 3) projects mature development of test technologies that directly support weapons, sensors, and network systems T&E at DOD test ranges/facilities.
- Army Single Face to Industry (ASFI) and FEDBIZOPPS Broad Agency Announcements (BAA) (multi-year) under eight distinct test technology areas.

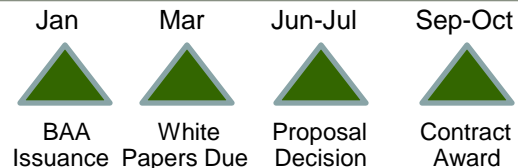
#### Acquisition Strategy

- Two-phased BAA process: 1) White Paper submission; 2) RFP invitation
  - Awards based on prioritized benefit to needs and available funds
- S&T / APPLIED TECHNOLOGY

#### Period of Performance

- Typical total project length: 3-4 years
- Projects phased as base + options to advance technology readiness level typically from 3 to 6, usually in 3 phases

#### Milestones



#### Point of Contact

Name: Glenda Torres  
Organization: PEO STRI Contracts  
Phone: 407-384-4413  
Email: Glenda.Torres@us.army.mil

#### Funding

- \$80M/yr funding supports issuance of new contracts across 8 technology areas and provides incremental funding to continue prior years' awarded contracts
- Expected 20-25 awards annually

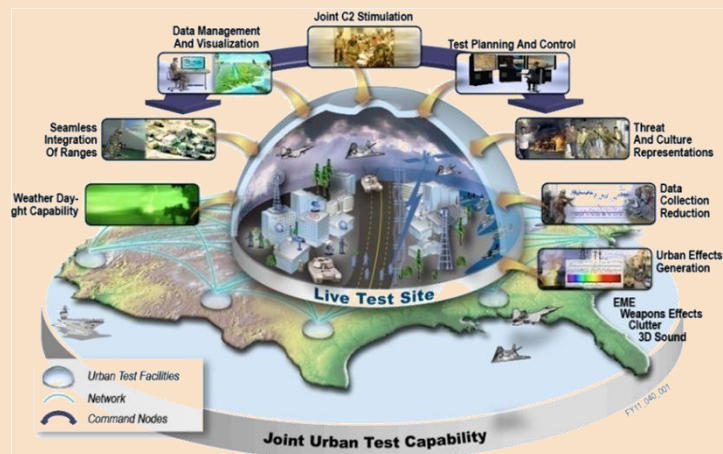
#### Current Contract/Original Developer/OEM (if recomplete)

- 8 Separate multi-year BAAs
- Annually updated with new topics
- Government/Academia/Industry solicited





# Joint Urban Test Capability (JUTC)



## Highlights

Last 6 Months: May 11 – Oct 11

- CTEIP Mid-Year review – May 11
- Test Capability Requirements Document (TCRD) revision May 11 – present
- Project Management Review – 3 Aug 11

Next 6 Months: Oct 11 – Apr 12

- TCRD Approval
- Project Management Plan
- Acquisition Strategy and Affordability Decision Review

## Project Description

The Joint Urban Test Capability (JUTC) is a Central Test and Evaluation Investment Program (CTEIP) effort that will represent an urban environment and provide the test infrastructure necessary to support Developmental and Operational Testing.

JUTC will provide technical solutions that create new urban environments or augment existing capabilities with effects generators, realistic threats and advanced data collection systems.

**Current ACAT:** Support Mission

### Current Milestone

Approaching Acquisition Strategy and Affordability Decision Review (Milestone A equivalent) – date TBD

## Requirements Documentation

TCRD submitted 24 Jan 11 – being revised to incorporate Navy requirements

## Customer/User

Customer: TRMC

End User: WSMR, China Lake, Patuxent River

Expected early End User customers: Network Integration Evaluation, Joint Tactical Radio System, Next Generation Jammer, Joint Allied Threat Awareness System, Joint Air-To-Ground Missile, Ground Combat Vehicle



# Joint Urban Test Capability (JUTC)




## Description/Summary of Program Requirements

The JUTC is a Central Test and Evaluation Investment Program effort that will represent an urban environment and provide the test infrastructure necessary to support Developmental and Operational Testing. JUTC will provide technical solutions that create new urban environments or augment existing capabilities with effects generators, threat representation, data collection systems and test planning and control.

Prime Mission Products will likely include:

- Live Urban Environment with Augmented Effects
- Virtual/Constructive Urban Environment
- Data Collection Systems
- Test Planning and Control
- Net-centric Connectivity

<b>Acquisition Strategy</b> <ul style="list-style-type: none"><li>• Acquisition Strategy under development.</li></ul>	<b>Period of Performance</b> <ul style="list-style-type: none"><li>• Period of Performance not yet defined.</li></ul>	<b>Milestones</b> <p>TBD</p>  <p>TCRD Approval</p>
<b>Technical Point of Contact</b> <p>Name: Michael Landers Organization: PM ITTS, IMO Phone: 407-384-3530 Email: Michael.Landers@us.army.mil</p>	<b>Funding</b> <ul style="list-style-type: none"><li>• Funding profile not yet defined - dependent upon finalized requirements.</li></ul>	<b>Current Contract/Original Developer/OEM (if recompute)</b> <ul style="list-style-type: none"><li>• N/A</li></ul>



# Aerial Target System IDIQ Contract



**RDT&E**

**Field  
Engineering  
Logistics**



## Highlights

Last 6 Months:

- Completed documentation/Signatures
- Pre Solicitation Synopsis : W31P4Q-12-R-0007

Next 6 Months:

- Draft RFP – 18 Nov
- Final RFP – 16 Dec
- Source Selection – 2 May

## Contract Description

- Competitive award to ~5 vendors
- Subtasks competed among the vendors
- ~49M ceiling – Base year with 4 option years
- Support for future aerial requirements

## Requirements Documentation

Qualitative Material Requirement	13 Nov 69
Capability Production Document	6 Jun 07

## Customer/Use

PATRIOT, HAWK, ChuSAM, USAF, USN, FMS, Lower Tier, MEADS







# Aerial Targets IDIQ



## Description/Summary of Program Requirements

- Multi vendor award.
- To acquire and support future aerial targets, engineering services, launchers, ground support equipment, repair & spare parts and logistical support.

<b>Acquisition Strategy</b> <ul style="list-style-type: none"><li>• Full and Open Competition</li></ul>	<b>Period of Performance</b> <ul style="list-style-type: none"><li>• Base year plus four option years</li></ul>	<b>Milestones</b> <div>1QFY12  Draft RFP Release</div> <div>3QFY12  Contract Award</div>
<b>Point of Contact</b> <p>Name: Pam Parker Organization: PM ITTS, TMO Phone: 256-876-5950 Email: Pamela.Parker5@us.army.mil</p>	<b>Funding</b> <ul style="list-style-type: none"><li>• Approximate \$50M dollar effort over 5 years</li></ul>	<b>Current Contract/Original Developer/OEM (if recompute)</b> <ul style="list-style-type: none"><li>• None</li><li>• RFI posted Fed Bus Ops 3 Aug 2010 W31P4Q-10-R-0321, closed 3 Sep 2010</li><li>• See POC for additional info</li></ul>



# Red Force Injection Jammer (RFIJ)



## Description/Summary of Program Requirements

- Production contract for the Threat Signals Injection Jammer (TSIJ) program.
- Generates a series of new threat Electronic Warfare (EW) hardware simulators that produce a wide array of communications jamming waveforms, that encompass a large Radio Frequency (RF) range; and, acquires these systems using a competitively bid, Firm Fixed Price (FFP) type contract.
- Advances current simulator baseline with new capabilities, at the indicated quantity levels:
  - Two-channel man-portable COMS threat signal injection jamming unit (220 units)
  - Five-channel vehicle borne next-generation signal injection jamming device with both COMS and GPS jamming capabilities (290 units)
  - Low-power, Unmanned, All-Weather Control Signal Transmitter for remote locations and capable of open air COMS and GPS jamming transmissions (40 units)

### Acquisition Strategy

- Production Contract

### Period of Performance

- 36 months – base year with 2 options

### Milestones

2QFY12



RFP  
Release

2QFY13



Anticipated  
Contract Award

### Point of Contact

Name: Jean Borowski  
Organization: PEO STRI Contracts  
Phone: 407-380-4261  
Email: Jean.Borowski@us.army.mil

### Funding

- \$25M

### Current Contract/Original Developer/OEM (if recompet)

- Scientific Research Corporation (SRC)
- Technical Data Package will be available 2QFY12



# Threat Computer Network Operation (TCNO) Team



## Highlights

### Last 6 months:

- Supported: NIE, GCSS, JLENS, Grey Eagle, Talisman Saber, FBI/NCIS
- Briefed: CG ATEC, TD ATEC, DUSA-TE, CG RDECOM, AMC G2
- Training: Blackhat/DEFCON, NSA RTBC, ISSMP, Army PTT,SANS
- Expanded by 2 DA Civilians
- Coordinated MOA with 1<sup>st</sup> IO

### Next 6 months:

- Test Support – **NIE, GCSS, GREY EAGLE, JLENS, NIE, VIPS,LMP**
- Training Support - Cyber Flag, JMETC, PACE
- Attend Immunity Security conference
- Finalize Red Team/STRATCOM Certification
- 1<sup>st</sup> IO MOA
- Add additional 2 DA Civilians

## Project Description

- Threat CNO Team is a POM funded program which satisfies Army and Tri-service requirements for a threat representative Threat CNO capability for OT as detailed in DOT&E guidance.
- CNO Team personnel maintain the extensive necessary training, certifications, and clearances to execute threat CNO on open and closed Army networks
- Provide realistic intelligence based real-world adversarial threat CNE & CNA
- Primary tool is NETT

**Current ACAT: Non-ACAT program**

## Requirements Documents

- Threat Capabilities Requirements Document (TCRD) signed by ATEC 30 Sep 2008

## Customer/User/Tests Supported

GFEBs GCSS  
JLENS WIN-T  
Terminal Fury IO Range  
DIMHRS NIE  
JMETC Cyber Flag  
DCGS-A DCDS/SMDC







# Threat Computer Network Operation (TCNO) Team



## Description/Summary of Program Requirements

- A Threat Computer Network Operations Team (TCNOT) to support Developmental and Operational TCNO Test and Evaluation (T&E) and training events and administrative staff for the development, maintenance, and support of the Information Operations Range (IOR) and the Threat Target Network (TTN) referred to as the Threat Network Operations Center (TNOC) Team.
- Satisfies Army and Tri-service requirements for a threat representative Computer Network Operation (CNO) capability.
- CNO team, comprised of U.S. personnel required to maintain extensive and unique training, certificates, and clearances to execute threat CNO on open and closed Army networks.
- Provides realistic intelligence-based real-world adversarial threat Computer Network Exploitation (CNE), Computer Network Defense (CND), and Computer Network Attack (CNA).
- Primary tool is the Network Exploitation Test Tool (NETT).

<b>Acquisition Strategy</b> <ul style="list-style-type: none"><li>• Competitive 8(a) set-aside</li></ul>	<b>Period of Performance</b> <ul style="list-style-type: none"><li>• Jan 2013 – Jan 2018</li></ul>	<b>Milestones</b> <div>2QFY12<div> RFP Release</div></div> <div>2QFY13<div> Anticipated Contract Award</div></div>
<b>Point of Contact</b> <p>Name: Jean Borowski Organization: PEO STRI Contracts Phone: 407-380-4261 Email: Jean.Borowski@us.army.mil</p>	<b>Funding</b> <ul style="list-style-type: none"><li>• \$10M</li></ul>	<b>Current Contract/Original Developer/OEM (if recompute)</b> <ul style="list-style-type: none"><li>• Millennium Corporation</li><li>• Requirement Package will be available 2QFY12 for recompute</li></ul>